

Serial No. 10/610,933..... page 2

IN THE CLAIMS:

1. (Currently Amended) A method, comprising:

writing a data set, with a write timing, at an area on an optical disc that has spatial features that distort an analog read data signal, the distortion varying as a function of write timing, where the data set has a characterized read error rate as a function of write timing at the area that has the spatial features:

reading the data set from the optical disc;

determining a read error rate for the data set; and

adjusting the write timing based on comparing the read error rate of the data set and the characterized read error rate as a function of write timing to provide a mark or a space on said disc that is precisely spatially located relative to at least one of said spatial features.

2. (Original) The method of claim 1, comprising:

observing whether the read error rate increases when write timing is shifted in one direction.

3. (Original) The method of claim 1, further comprising:

observing whether the read error rate decreases when the write timing is shifted in one direction..

4. (Original) The method of claim 1, further comprising:

repeating the steps of writing a data set, reading the data set, and determining a read error rate for the data set, multiple times.

Serial No. 10/610,933..... page 3

5. (Currently Amended) A method comprising:

writing a data set, with a write timing, at an area on an optical disc that has spatial features arranged in accordance with the data set;

reading the data set from the optical disc;

determining a first read error rate for the data set;

adjusting the write timing;

writing the data set at the area on the optical disc that has spatial features;

reading the data set from the optical disc;

determining a second read error rate for the data set;

selecting a lowest read error rate among the first and second read error rates;

and

choosing a write timing corresponding to the lowest read error rate to provide a mark or a space on said disc that is precisely spatially located relative to at least one of said spatial features.

6. (Currently Amended) A method, comprising:

writing a data set, with a write timing, at an area on an optical disc that has spatial features arranged in accordance with the data set;

reading the data set from the optical disc;

determining a read error rate for the data set;

adjusting the write timing to provide a mark or a space on said disc that is precisely spatially located relative to at least one of said spatial features; and

repeating the preceding steps until the read error rate is less than a predetermined value.

7. (Currently Amended) A method, comprising:

writing a first data set, with a write timing, at an area on an optical disc that has spatial features that distort an analog read data signal, the distortion varying as a function of write timing;

Serial No. 10/610,933..... page 4

writing a second data set, with the write timing, at an area on the optical disc that has spatial features that distort an analog read data signal, the distortion varying as a function of write timing;

reading the first data set and the second data set from the optical disc;

determining a first read error rate for the first data set, and a second read error rate for the second data set;

comparing the first and second error rates; and

adjusting the write timing based on the comparison of the first and second error rates to provide a mark or a space on said disc that is precisely spatially located relative to at least one of said spatial features.

8. (Currently Amended) A method, comprising:

writing a data set, having a known error rate as a function of write timing, at an area on an optical disc that has spatial features arranged in accordance with the data set;

reading the data set;

measuring a read error rate;

comparing the read error rate to the known error rate as a function of write timing to ~~determining~~ determine a write timing error; and

using the write timing error to adjust the write timing to provide a mark or a space on said disc that is precisely spatially located relative to at least one of said spatial features.

9. (Currently Amended) A system comprising:

means for writing a data set, with a write timing, at an area on an optical disc that has spatial features that distort an analog read data signal, the distortion varying as a function of write timing, where the data set has a characterized read error rate as a function of write timing at the area that has the spatial features:

means for reading the data set from the optical disc;

Serial No. 10/610,933..... page 5

means for determining a read error rate for the data set; and

means for adjusting the write timing based on comparing the read error rate of the data set and the characterized read error rate as a function of write timing to provide a mark or a space on said disc that is precisely spatially located relative to at least one of said spatial features.

10. (Previously Presented) The invention of claim 1 further comprising means for observing whether the read error rate increases when write timing is shifted in one direction.

11. (Previously Presented) The method of claim 1 further comprising means for observing whether the read error rate decreases when the write timing is shifted in one direction.

12. (Previously Presented) The method of claim 1 further comprising means for repeating the steps of writing a data set, reading the data set, and determining a read error rate for the data set, multiple times.

13. (Currently Amended) A system comprising:

means for writing a data set, with a write timing, at an area on an optical disc that has spatial features arranged in accordance with the data set;

means for reading the data set from the optical disc;

means for determining a first read error rate for the data set;

means for adjusting the write timing;

means for writing the data set at the area on the optical disc that has spatial features;

means for reading the data set from the optical disc;

means for determining a second read error rate for the data set;

Serial No. 10/610,933..... page 6

means for selecting a lowest read error rate among the first and second read error rates; and

means for choosing a write timing corresponding to the lowest read error rate to provide a mark or a space on said disc that is precisely spatially located relative to at least one of said spatial features.

14. (Currently Amended) A system comprising:

means for writing a data set, with a write timing, at an area on an optical disc that has spatial features arranged in accordance with the data set;

means for reading the data set from the optical disc;

means for determining a read error rate for the data set;

means for adjusting the write timing to provide a mark or a space on said disc that is precisely spatially located relative to at least one of said spatial features; and

means for repeating the preceding steps until the read error rate is less than a predetermined value.

15. (Currently Amended) A system comprising:

means for writing a first data set, with a write timing, at an area on an optical disc that has spatial features that distort an analog read data signal, the distortion varying as a function of write timing;

means for writing a second data set, with the write timing, at an area on the optical disc that has spatial features that distort an analog read data signal, the distortion varying as a function of write timing;

means for reading the first data set and the second data set from the optical disc;

means for determining a first read error rate for the first data set, and a second read error rate for the second data set;

means for comparing the first and second error rates; and

Serial No. 10/610,933..... page 7

means for adjusting the write timing based on the comparison of the first and second error rates to provide a mark or a space on said disc that is precisely spatially located relative to at least one of said spatial features.

16. (Currently Amended) A system comprising:

means for writing a data set, having a known error rate as a function of write timing, at an area on an optical disc that has spatial features arranged in accordance with the data set;

means for reading the data set;

means for measuring a read error rate; ~~and~~

means for comparing the read error rate to the known error rate as a function of write timing to ~~determining~~ determine a write timing error; ~~and~~

means for using said write timing error to provide a mark or a space on said disc that is precisely spatially located relative to at least one of said spatial features.

17. (New) The invention of Claim 1 further including the step of adjusting the write timing to provide a mark or space that is precisely spatially centered relative to said at least one spatial feature.

18. (New) The invention of Claim 5 further including the step of choosing the write timing to provide a mark or space that is precisely spatially centered relative to said at least one spatial feature.

19. (New) The invention of Claim 6 further including the step of adjusting the write timing to provide a mark or space that is precisely spatially centered relative to said at least one spatial feature.

Serial No. 10/610,933..... page 8

20. (New) The invention of Claim 7 further including the step of adjusting the write timing to provide a mark or space that is precisely spatially centered relative to said at least one spatial feature.

21. (New) The invention of Claim 8 further including the step of adjusting the write timing to provide a mark or space that is precisely spatially centered relative to said at least one spatial feature.

22. (New) The invention of Claim 9 further including means for adjusting the write timing to provide a mark or space that is precisely spatially centered relative to said at least one spatial feature.

23. (New) The invention of Claim 13 further including means for choosing the write timing to provide a mark or space that is precisely spatially centered relative to said at least one spatial feature.

24. (New) The invention of Claim 14 further including means for adjusting the write timing to provide a mark or space that is precisely spatially centered relative to said at least one spatial feature.

25. (New) The invention of Claim 15 further including means for adjusting the write timing to provide a mark or space that is precisely spatially centered relative to said at least one spatial feature.

26. (New) The invention of Claim 16 further including means for using the write timing error to provide a mark or space that is precisely spatially centered relative to said at least one spatial feature.